

CE 213A

Introduction to Environmental Science

*L 3 : Course Introduction
Environmentalism*

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Schedule : LEC: W F 10:30-12:00; T112

L2, L3 Content

- ✓ Environmental History
 - ✓ The Progressive Era
 - ✓ Environmental Ethics
 - ✓ Natural resource conservation
 - Modern Environmentalism
 - Laws and Regulations
 - Post-Environmentalism
- Ecological Footprint
 - Demographic Divide
 - Economics and the Environment
 - Environmental Worldview

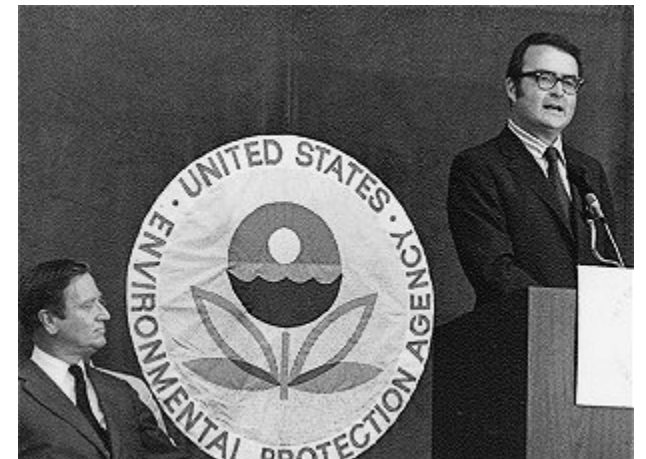
2. Modern Environmentalism

- A series of major environmental disasters through the early 20th century raised awareness of other environmental issues besides resource conservation.

Outcome ----- Laws and Regulations

Case Study - USA

- A series of laws were passed in response to the modern environmentalism movement.
 - The **Safe Drinking Water Act**, which regulates the testing and contents of municipal tap water.
 - The **Clean Water Act**, which restricts pollution of surface waters.
 - The **Clean Air Act**, which restricts pollution of the atmosphere.
 - The **Resource Conservation and Recovery Act**, which describes rules for handling toxic and hazardous waste.
 - The **Endangered Species Act**, which lists species at risk for extinction and plans for their recovery.
 - The creation of the **Environmental Protection Agency (EPA)**, which is charged with enforcing these and other laws.



3. Post-Environmentalism

- Many of those same environmental issues persist today, but are increasingly complex to deal because they are spread throughout the entire world, not just a single country.

Challenge:

The Demographic Divide

- One of the biggest challenges is dealing with environmental issues in **developing countries** that have not yet fully industrialized.
- Compared to developed countries, developing countries tend to have:
 - **Lower gross domestic product (GDP)**, a measure of the monetary value of the goods and services produced.
 - Higher **total fertility rates**, the number of children born to an average woman.
 - Lower **life expectancy**, the number of years an average person will live.
 - Fewer **environmental regulations** and worker protections.

Economics and the Environment

Definitions

- **Supply and demand** predicts that the cost of a resource will increase when demand is high or supply is low.
- **Economic growth:**
Increase in capacity of a country to provide people with goods and services
- **Economic development:**
Improvement of (human) living standards by economic growth

Gross Domestic Product (*GDP*)

- **Gross Domestic Product (*GDP*)**
 - Annual market value of all goods and services produced by all firms and organizations, foreign and domestic, operating within a country.
- **Per Capita GDP**
 - Annual gross domestic product (GDP) of a country divided by its total population at mid-year. It gives the average slice of the economic pie per person.

Economic principles has a huge influence in environmental decision-making.

Ecological Footprint

- It measures the average environmental impact of individuals or populations in different countries and areas.
- **The impact of a person on the environment is expressed as **ecological footprint**, an estimate of the amount of land needed to support their lifestyle.**
- Amount of biologically productive land and water needed to supply each person or population with the renewable resources they use and to absorb or dispose off the wastes from such resource use.